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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,110	06/26/2001	Harold L. Mantius	00414-057001	4393
26161	7590	04/25/2005	EXAMINER	
FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110			PRATT, HELEN F	
			ART UNIT	PAPER NUMBER
			1761	
DATE MAILED: 04/25/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/892,110

Applicant(s)

MANTIUS ET AL.

Examiner

Helen F. Pratt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18, 23, 24, 29-48, 53, 54 and 59-64 is/are pending in the application.  
4a) Of the above claim(s) 49-51 is/are withdrawn from consideration. *+ 55-58*  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-18, 23, 24, 29-48, 53, 54, 59-61 and 63 is/are rejected.  
7) ☒ Claim(s) 62 and 64 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Double Patenting*

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-18, 23, 24, 29-48, 53-54, 59, 60, 61 -64 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 6,733,813. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are both to a method of treating fruit or vegetable juice, which separate sugars and acids from another juice stream thereby making an acid reduced stream and an acid enriched stream. It is seen that the acids reduced stream would have also contain higher molecular weight phytochemicals since only acids have been removed leaving the remaining phytochemicals to have a higher percentage of such in the composition.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-18, 25-28, 31-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Black, Jr. et al. (5,403,604) in view of Gresch (5,496,577), Strobel et al. (4,971,813) and Lenoble et al. (5,908,650).

Black et al. disclose a process of separating sugar and acid from juices to make a nutritious high Brix/acid ratio juice fraction and a low calorie, B/A ratio content juice fraction. The low calorie juice fraction is sweetened with a high potency sweetener. The sugar separation process involves ultrafiltration (claim 8) (abstract). The reference discloses that a low-sugar juice, which contains higher-molecular components, is known (col. 4, lines 15-20). Claims 1, 2 and 8 differ from the reference in the combining of relatively high molecular weight phytochemical-rich juice fraction with a second portion of the fruit juice. However, since the sugar and acids have been removed from the first portion of juice, this portion is considered to also be a high molecular weight phytochemical-rich juice fraction. Gresch discloses desugaring a juice and then adding a stream of juice with a high acid brix ratio into the first stream of desugared juice (col. 6, lines 50-64). Since one stream is desugared and deacidified, it is considered to have

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been rich in phytonutrients as in the claimed process. Even though the second stream in the reference to Gresch is high acid and brix, it is not excluded by the claim language which only requires a second portion of fruit juice, but does not state the chemical make up of that juice (col. 6, lines 50-64). Strobel et al. disclose that it is known to remove aroma and flavor volatiles from a juice stream and then return them to a sugar reduced juice (abstract). Lenoble et al. disclose that it is known to remove sugar from a juice, which leaves an anthocyanin pigment additive (phytochemical) which can be used to enrich foods (col. 7, lines 5-48, lines 60-65 and col. 8, lines 1-10). The anthocyanin pigment can be from cranberries (col. 11, lines 5-10). Therefore, it would have been obvious to combine the high acid brix juice stream of Gresch or the aroma and volatiles of Strobel, or the anthocyanin pigments of Lenoble with foods or a desugared juice because these references disclose adding back phytochemical fractions such as aroma and volatiles and anthocyanin pigments to enrich a juice stream or a food product.

Claim 1 has been amended to require that the juice be provided in a first portion and a second portion. However, nothing new is seen in this, as it would of necessity be required in order to treat a first portion of the juice. Therefore, it would have been obvious to divide the juice into various portions in order to separately treat them.

Claim 2 further requires combining the lower molecular weight sugars and acids-rich juice fraction with a third portion of juice to make a sugars and acids rich fruit juice and providing a third portion of fruit juice. Gresch discloses adding a second stream of high sugar to a sugar- reduced stream (abstract). Certainly, various variations of adding enriched streams or reduced streams to juices are within the skill of the ordinary worker

depending on the end product required. Therefore, it would have been obvious to add particular enriched or reduced acid and sugar streams to juices.

Claims 3 and 4 further require concentrating the enriched or reduced streams. Gresch discloses concentrating the initial product (col. 7, lines 5-10). Therefore, it would have been obvious to remove water to make a concentrated product.

Claim 5 further requires that the fruit juice is cranberry juice. Strobel discloses the use of cranberries (col. 4, lines 10-20). Therefore, it would have been obvious to use cranberries as the fruit of the fruit in the process of the combined references.

Claims 6 and 7 are to the product prepared by the processes of claims 1 and 2. Claim 25 is also a product by process claim. The fact that the procedures of the reference are different than that of applicant is not a sufficient reason for allowing the product-by-process claims since the patentability of such claims is based upon the product formed and not the method by which it was produced. See *In re Thorpe* 227 USPQ 964. The burden is upon applicant to submit objective evidence to support their position as to the product-by-process claims. See *Ex parte Jungfer* 18 USPQ 2D 1796. The composition has been shown by the above combined references. Therefore, it would have been obvious to make the composition as disclosed.

Claim 9 is to further combining the low molecular weight sugars and acids-rich rich fruit juice with juice to create an enriched juice product. Strobel in particularly discloses adding a juice without sugar with fresh juice (col. 11, lines 5-8). As above, it would have been within the skill of the ordinary worker to add the various fractions to juices to make whatever type of product once it is known to reduce the sugar and acid

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in a juice stream. Therefore, it would have been obvious to enrich juice streams as shown above. The further limitations of claims 10-18 have been discussed above and are obvious for those reasons.

The limitations of claims 31-48 have been disclosed above and are obvious for those reasons.

Claims 23, 24, 29, 30, 53, 54, 59, 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over the above combined references as applied to the above claims, and further in view of Nelson et al. (page 66).

Claims 23 and 24, 30, 53, 54, 59, 60 further require drying the various juice fractions. However, drying is very well known of any juice product as disclosed by Nelson (page 66). Claim 29 further requires that the phytochemical rich fruit juice powder is a dietary supplement. The composition has been shown, therefore it would have been obvious to use it as a dietary supplement, if it has nutritional value. Claim 30 further requires that the product is a tablet. However, tableting of various ingredients is well known as in various pills. No patentable distinction is seen in the use of vegetable juices as opposed to fruit juices as there is often confusion about which is which. For instance, is a tomato a fruit or a vegetable? The limitations as to the juice being a vegetable juice have been discussed above in regards to fruit juice since no patentable distinction is seen at this time. Therefore, it would have been obvious to dry the claimed product and to make a tablet of it or to use the composition as a dietary supplement.

New claims 61 and 63 further require that the fruit juice is divided into 3 juice streams. However, this limitation has been disclosed above and is obvious for those reasons.

#### ALLOWABLE SUBJECT MATTER

Claims 62 and 64 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ARGUMENTS

Applicant's arguments filed 3-10-05 have been fully considered but they are not persuasive. Applicants argue that the phytochemical rich juice fraction is combined with the second portion of the juice to create the fraction and that Black may not be a phytochemical rich juice fraction and that if it does the cited references do not make the present claims obvious. Applicants argue that the combined references do not combine the phytochemical rich fraction with the same juice used to create the fractions. However, the references do disclose that it is known to add and remove various ingredients from juices and to add separated fractions or ingredients to other juice streams (Gresch, Strobel and Lenoble). It is seen that it would have been within the skill of the ordinary worker to add the separated fractions ~~the~~ to the juice stream or to any food, depending on the particular product. Certainly, if one wanted to enrich the original juice fraction, that is what one would do, if they wanted to enrich another food, since the product is already made, they would add it to that food. Nothing new or unobvious is seen here.



Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen F. Pratt whose telephone number is 571-272-1404. The examiner can normally be reached on Monday to Friday from 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Milton Cano, can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Hp 4-18-05

  
HELEN PRATT  
PRIMARY EXAMINER